XVIII.—*Note on Two new Species of Fossil Tortoises.* By C. W. Andrews, D.Sc., F.R.S. (British Museum, Natural History).

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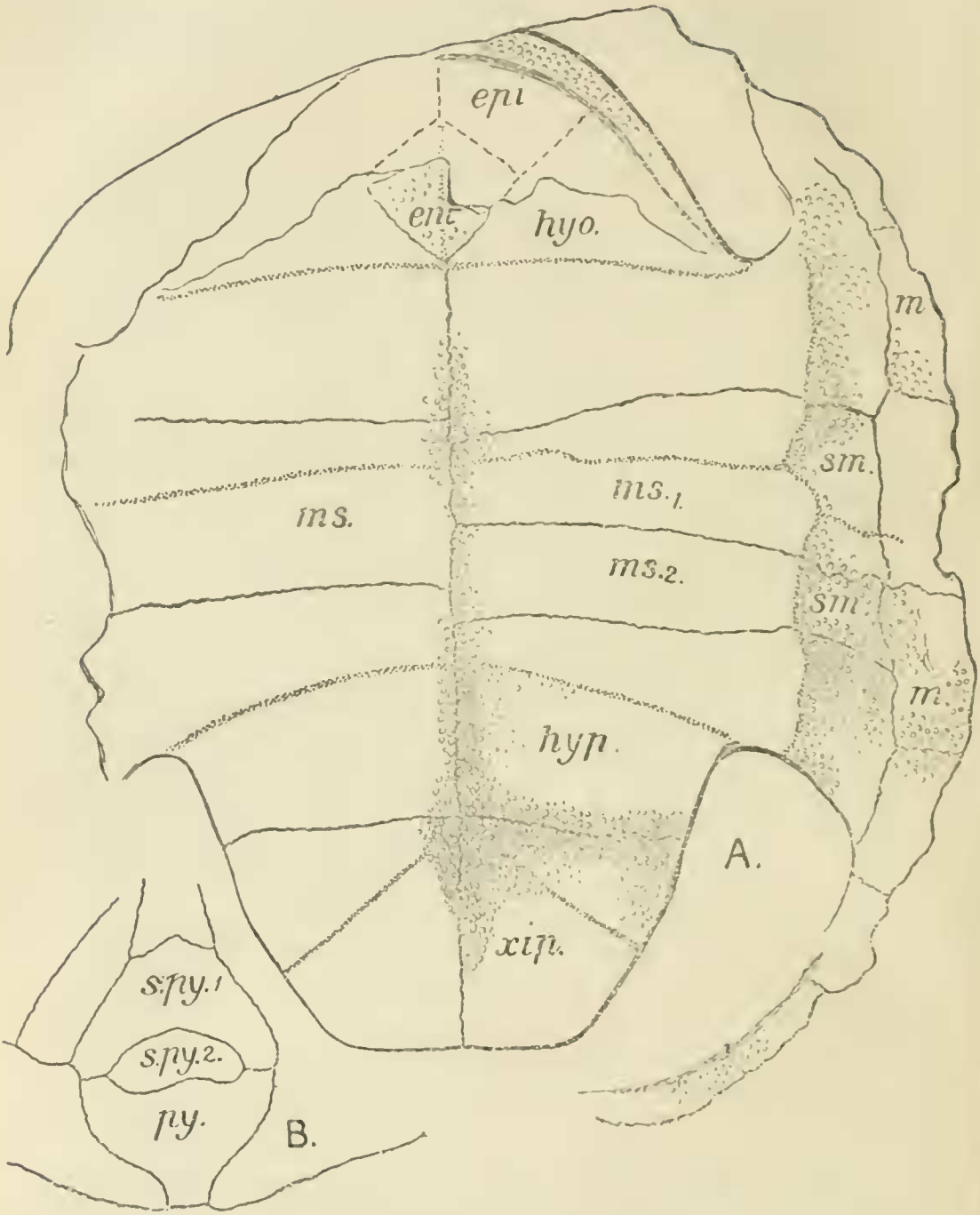
The first of the two specimens which form the subject of the present note is an internal cast of the shell of a rather large Pleurodiran tortoise, with some of the carapace and plastron still adhering to it. It is from the Upper Greensand of Melbury Down, near Shaftesbury, Dorset, and it is said to have been used for some years for blocking a gate open, a circumstance which probably accounts for the broken condition of the marginal portion of the shell. The specimen then passed into the collection of late Mr. John Rutter, and was presented to the British Museum by Mr. Clarence E. Rutter in 1915.

Most of the carapace has been lost, and is represented only by the natural cast of its inner surface. The parts preserved are two or three costal bones on the right side, perhaps some neurals, the pygal, the supra-pygal or supra-pygals, and the six posterior marginals much broken at the edges. Portions of the posterior costals are present on the left side, and there are a few other adherent portions of bone of no importance.

The plastron is, on the whole, beautifully preserved, only the front of the anterior lobe being missing, the epiplastrals, the front of the entoplastral, and parts of the hyo-plastral being represented by the impressions of their upper surface only. The bridge uniting the carapace and plastron is well preserved on the left side, but on the right most of it is represented by the impressions of the bones only. The plates of the carapace and plastron, together with the infilling mass of matrix, probably give a pretty accurate idea of the true form of the shell, which was strongly arched from side to side and to a rather less degree from before backwards. The length of the shell was approximately 580 mm. (the front part of the cast is somewhat incomplete). The width is roughly 470 mm.; the height is about 220 mm.; the length of the bridge is 225 mm. The plates all bear a strongly developed ornament consisting of round or oval tubercles, often flat at the top and sometimes with a small depression in the middle. They measure from one to four millimetres across and are most strongly developed on the bridge and the lateral portions of the plastron. In spite of this strong sculpture horny scutes were present, at least on the plastron,

Fig. 1.



Trachydermochelys rutteri. A, plastron; B, posterior end of carapace.

ent., entoplastron; *epi.*, epiplastron; *hyo.*, hyoplastron; *hyp.*, hypoplastron; *m.*, marginals; *ms.*, mesoplastron of left side; *ms.* 1, *ms.* 2, mesoplastrn of right side, *py.*, pygal; *sm.*, submarginals; *s.py.* 1, *s.py.* 2, suprapygals; *xip.*, xiphiplastral. About ½ nat. size.

The whole surface is covered with sculpture, but this has only been drawn where most strongly developed.

where the sulci marking their boundaries are well defined. The whole shell was very massive, some of the plastral plates measuring upwards of 13 mm. in thickness.

The arrangement of the plates will be best understood from the figures. There seems to have been a pygal of peculiar form, narrowing towards the margin of the shell (fig. 1, B) : it is represented in part by its impression only, but the sutures can be followed. The lower supra-pygal is a small well-defined bone, crescentic in outline, with the concavity downwards. The nature of the bone above is doubtful, the sutures in this region being obscure and cracks numerous : it may be a second supra-pygal or the posterior pair of costals uniting in the middle line. If this last interpretation is correct, the animal possessed at least nine pairs of costals—a quite exceptional condition. The marginals were very massively constructed : all preserved are much broken at the edges. The plastron (fig. 1, A) is chiefly remarkable for the presence of two mesoplastrals on the left side, while there is only one on the right. This reduplication of the plastral element is interesting, because it may indicate a tendency to revert to an earlier condition in which the number of paired elements in the plastron was greater than in later forms. The posterior lobe narrows gradually backwards from the bridge, and its posterior end is slightly notched. The anterior lobe is broadly rounded ; the form of the epiplastrals cannot be clearly determined, but it can be seen that their upper border was thickened, rounded, and covered with the characteristic sculpture. The entoplastron is incomplete, but was probably lozenge-shaped. The hyoplastra are incomplete in front. The single mesoplastron on the right side is very wide, almost as wide as the two occurring on the other side taken together. On both sides the mesoplastra widen out towards the bridge, this being particularly marked in the anterior one on the left side. The form of the hypo- and xiphiplastra present no special peculiarities. The grooves marking the outline of the horny scutes are well marked on the plastral surface, but could not be seen on what remains of the carapace. The boundary between the humeral and pectoral scutes crosses just behind the posterior angle of the entoplastron, that between the pectorals and abdominals is on the mesoplastra. The grooves between the femoral and anal scutes slope strongly backwards, and are confined to the xiphiplastra. On the bridge there were three or four submarginal scutes. The presence of the horny scutes on a shell in which the sculpture is so strongly developed seems remarkable.

The precise systematic position of this chelonian is not certain, but it must belong either to the Amphichelydia or to the Pleurodira. It may be referred to the genus *Trachydermochelys*, founded by Seeley * for the reception of some scutes from the Cambridge Greensand, possessing a nearly identical type of sculpture, their specific name being *T. phlyctænus*; the species has never been properly described and figured, and Lydekker † has suggested that these scutes may actually belong to species of *Rhinochelys*. This, however, is by no means certain, and I therefore prefer to employ the name *Trachydermochelys* given to the sculptured scutes. In the Cambridge Greensand species the sculpture is considerably finer than in the present specimen, which, moreover, is from a different horizon: for these reasons I propose to refer it to a new species, for which the name *Trachydermochelys rutteri* is proposed.

A Chelonian shell from the Upper Greensand of the Isle of Wight was described by Owen (quoted by C. Parkinson) in the Quart. Journ. Geol. Soc. vol. xxxvii. 1881, p. 370, and was made the type of a new genus and species under the name *Plastremys lata*. This specimen is R. 48 of the British Museum collection. The only character mentioned by Owen is the absence of the mesoplastral elements, and this is an error; the promised further description never appeared. In 1889, Lydekker (Catal. Foss. Rept. Brit. Mus. pt. iii. p. 195) referred this specimen to his genus *Hylæochelys*, repeating the statement that mesoplastra are absent. Re-examination of the shell, however, shows that not only were these elements present but that they were large, and that a sculpture similar to that of *Trachodermochelys*, though not so strongly marked, was present in the region of the bridge, the rest of the shell so far as known being smooth. It seems almost certain that this specimen represents another species of *Trachydermochelys*, the name of which would be *Trachydermochelys lata*, Owen, sp.

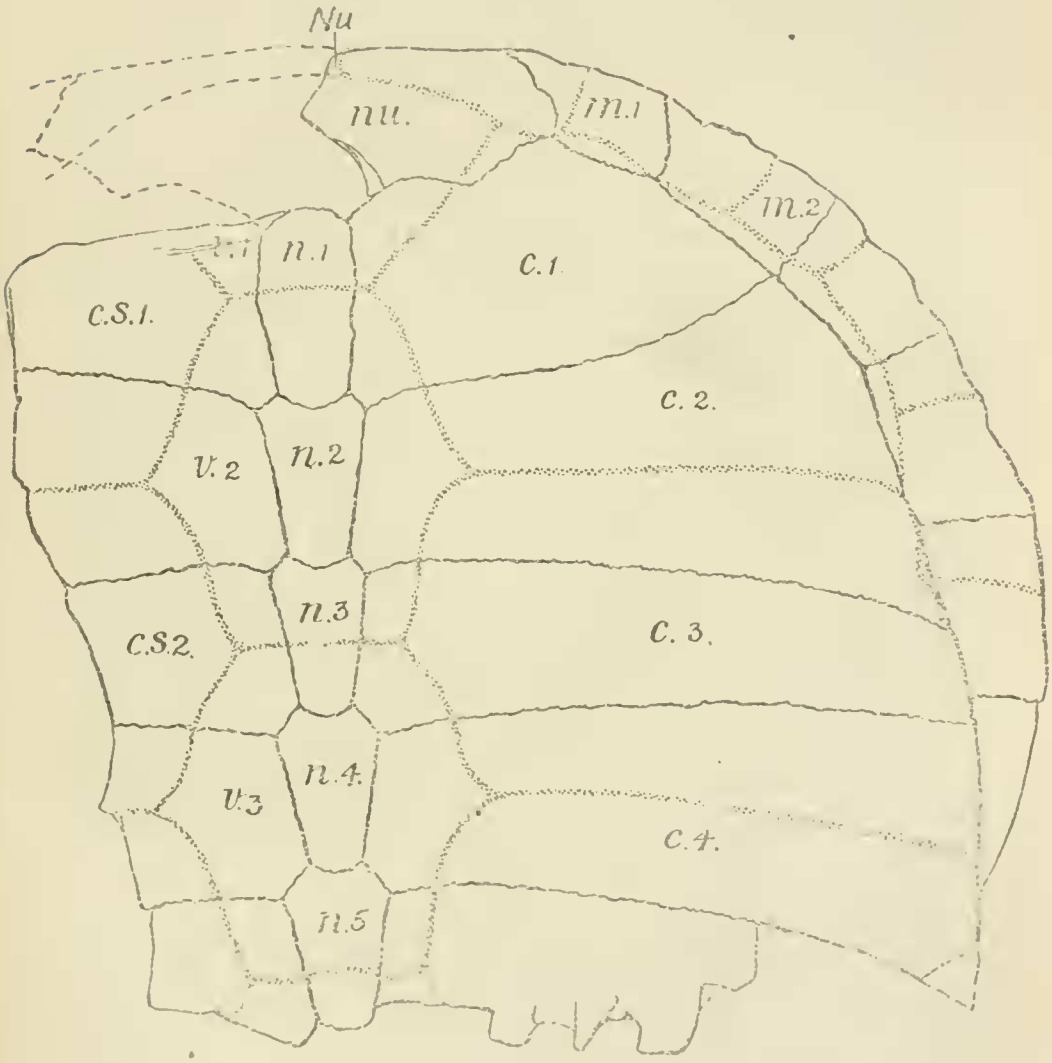
The second specimen here described is part of the carapace of a tortoise from the Barton Clay at the foot of Highcliff, near Christchurch, Hants. It is preserved in the Museum of Practical Geology, Jermyn Street (No. 20497). The parts of the shell present are: the right half of the nuchal bone, the five anterior marginals, the five anterior neurals, the four anterior costals, and part of the fifth on the right side, while

* 'Index to Aves etc. in the Cambridge Museum,' pp. xix & 33 (1869). These specimens have never been properly figured or described.

† Lydekker, Catal. Foss. Rept. Brit. Mus. pt. 3, p. 182.

on the left only the upper ends of these bones are present. The length in the middle line of the portion preserved is 385 mm., probably rather more than half the length of the whole shell, which, therefore, was of considerable size. The width measured at the level of the third neural was

Fig. 2.



Palæmys bartonensis. Anterior portion of carapace.

c. 1–4, costal bones; *c.s.* 1–2, costal shields; *m.* 1–2, marginals; *n.* 1–5, neural bones; *nu.*, nuchal bone; *Nu.*, nuchal shield; *v.*, vertebral shields. ½ nat. size.

about 634 mm.; but this is probably an exaggeration, owing to the flattening that has been undergone, although perhaps the convexity of the carapace was never very great.

The general arrangement of the bones and scutes is shown in fig. 2.

The nuchal was very wide (about 230 mm.), while its length in the middle line was only about 67 mm. It seems to have had a small median prominence on either side, of which its border is slightly concave. Its form is peculiar, and I have been unable to find any other nuchal similar to it. The neural bones are long and narrow. The first is four-sided, the long lateral borders being slightly convex; the posterior end is bluntly pointed to fit into a notch in the front border of the second. This latter, together with the other neurals preserved, has a short anterior lateral border and a long posterior one; the posterior end in all is rounded and fits into a concave anterior border of the bone behind. The anterior costal is roughly triangular in outline, its outer border occupies exactly the length of the first two marginal bones. The second costal is about 70 mm. wide at its inner end, but widens out to about double this before it joins the marginals. The third costal, on the other hand, which is about the same width at its inner end, narrows to about half this at its outer end. The fouth costal widens out like the second. The fifth is only partly preserved. This alternate widening and narrowing of the costal bones is seen in many species of *Testudo*, but here the form of the neurals and their relations to the costals is quite different.

The grooves marking the outlines of the horny shield are well marked. There may, perhaps, have been a very small nuchal shield; the first marginal shield, in correlation with the great width of the nuchal bone, is very long from side to side and narrow. The form of the costal and marginal shields and their relations to the underlying bones will be best understood from the figure. The shape and arrangement of the shields are much as in *Emys*.

This specimen has been compared with any other forms with which relationship seemed likely, but differs very considerably from all. Its chief distinguishing characteristics are the great width of the nuchal bone, the long narrow neurals, and the alternate widening and narrowing the costals. I propose to refer this specimen to a new genus, *Patanemys*, the specific name being *Patanemys bartonensis*, sp. n. It seems to belong to the family Emydidæ.

XIX.—*Notes on the* Ichneumonidæ *in the British Museum.*—III. *On a new Tasmanian Species.* By Rowland E. Turner, F.Z.S., F.E.S.

Platylabus altitudinis, sp. n.

♀. Nigra; mandibulis in medio, palpis, antennis articulis 8 basalibus, pedibusque, coxis exceptis, ferrugineis; trochanteri-